

U.S. NAVY MEDICINE

November 1980



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The issuance of this publication is approved in accordance with Department of the Navy Publications and Printing Regulations (NAVEXOS P-35).

NAVME P-5088

U.S. NAVY MEDICINE

Vol. 71, No. 11
November 1980

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SPECIAL REPORT

The Surgeon General's 12th Annual Specialties Advisory Conference and Committees' Meeting

The conference was held 14-19 Sept 1980 in Bethesda, MD. Following is a report of the first plenary session of this annual conference.

The report represents an edited (sometimes paraphrased or abbreviated) version of the remarks and presentations of specified individuals. Their comments do not necessarily reflect official views of the Navy Department or the naval service at large. —Ed.

Deputy Surgeon General's Keynote Address

RADM H.A. Sparks, MC, USN
Deputy Surgeon General of the Navy

At the outset I want to present a perspective of where we are in Navy medicine while tracing with you some of the changes which have taken place in civilian as well as naval medicine. These changes have had a profound impact on the way we do business. First and foremost, medicine has changed. Every five years for the past 30 years there has been a 50 percent increase in the total body of medical knowledge, both diagnostic and therapeutic. This increase must be assimilated and brought to bear on a daily basis if we are to provide state of the art medicine and medical services to the wide range of Navy people and programs we support. These quantum jumps in medical knowledge and technology have changed our way of doing business, particularly in our work places. A few years ago, our emphasis was primarily on inpatient care. Expectations of health care have combined to shift the majority of our work effort out of the hospital bed and into the ambulatory health care arena. As a result of this change in emphasis, the hospitals themselves have essentially become acute care centers. This, along with the change from open

wards to smaller patient rooms, generates additional staffing requirements.

The availability of highly trained manpower of all types is another concern. As you know, under the draft system, the so called "Berry Plan" provided us with a full spectrum of highly trained physicians encompassing all of the medical specialties in whatever numbers were needed. This loss of guaranteed input, coupled with the economic competition offered by the civilian medical market, has resulted in the loss of many of the mission-essential personnel we need. I am happy to report to you that things do look better in terms of gross numbers. For the first time in several years our corps size may even exceed our authorized end strength. But we do have a critical problem in several specialty areas that RADM Museles and CAPT Bodenbender will address later. The Nurse Corps, Dental Corps, and Medical Service Corps staffing picture looks bright at present. We do have numerous and often critical problems in our enlisted manning. Again, the future may be brighter as DOD recognizes these problems. It has already directed that resources be programmed to increase medical support personnel by FY82. That and the implementation of the physician special pay bill should help us in the future.

A third area of which you should be aware is that engendered by the change in the breadth of the Medical Department mission. As each of the various communities we serve has expanded the scope of its operation, Navy medicine has had to follow. There are increased complexities in operational endeavors and contingency response. We are conducting operations at altitudes and depths never before entered. There are now chemical and biological considerations. We must take into account radiation safety, environmental extremes, industrial operations, family welfare, and drug and alcohol detection and rehabilitation. All have man-

dated responses on our part to keep pace with the new initiatives. However, the resources needed have all too often been of necessity derived from existing programs.

We must appreciate the fact that in addition to our primary mission, we must support our beneficiary population. Today's Navy Medical Department is one of the largest health care organizations in the world, serving almost three million beneficiaries. Strengths of active duty personnel and their dependents are relatively stable while those of retired personnel and their dependents are increasing. In addition, we provide occupational health services to approximately 300,000 civilian personnel. In support of this beneficiary population, we must execute and coordinate a diversity of functions ranging from contingency readiness to social programs. All of these functions have been deemed important and necessary.

We must never lose sight of the fact that maintenance of a medical department force with the skills needed to go to war is dependent upon the operations of a direct care system of sufficient diversity. It must be able to provide training and practical experience, and operate a strong Graduate Medical Education Program. The direct care system is the primary mechanism for maintaining a contingency base capable of immediate response in support of wartime requirements. During peacetime, these assets are utilized to provide support

to the fleet and to a very large and diverse beneficiary population. The skills required for wartime support are primarily surgical and environmental health specialties. Continued reductions of inpatient care and education programs on a purely economic basis degrades readiness. You and I know this and we are slowly convincing our superiors of this fact. Also, any reduction in the amount of direct care available further decreases consumer satisfaction and exerts a negative influence on recruiting and retaining Navy and Marine Corps personnel. This, combined with our need for readiness, has gotten us increasing support in the OPNAV and DOD arena in recent months.

I want to state that even though we still have many problems and constraints, the time for pessimism is over. We must develop a positive action base and an optimistic attitude toward the future. Our future begins here today. The Surgeon General and BUMED cannot solve the Medical Department problems alone. You have the expertise, the innovation, and the stamina to analyze our problems and help solve them. The Navy Medical Department is sound and stands ready to answer our assigned task in support of combat readiness.

It is our primary responsibility to conserve the military manpower of the Navy and Marine Corps. In peacetime, we must maintain the health status of our



Question and answer session (left to right): CAPT E.L. Taylor, MC; RADM M. Museles, MC; RADM H.A. Sparks, MC; RADM F.T. Shea, NC; LCOL B.W. Wolcott, MC, USA; RADM J.D. Enoch, DC; CAPT P.D. Nelson, MSC; HMCN S.W. Brown

Photos by HM2 J. Parmenter, USN



RADM Sparks



RADM Museles



CAPT Bodenbender

forces through health education, health protection, and personal health care. All this has but one goal—readiness. Simultaneously, the Medical Department must be ready to make a prompt transition from its peacetime posture to a well-trained, properly outfitted, and carefully positioned worldwide medical department force. We are an integral part of our Nation's naval warfare system. Our contribution to the Nation's defense is to provide medical support to those combat ready naval forces whose mission is to control the sea lanes and to project power ashore. To do this, we need specialized combat medicine training and have taken steps in that direction. We recently had several physicians and dental officers attend a tri-service combat medicine course at Camp Bullis, TX. The course was a huge success. This will continue in the future. The addition of fleet hospitals and a hospital ship seems to be moving smartly. More needs to be done in this area, but at least we have a foot in the door.

May I submit that each and everyone here today has a very special personal involvement in the status and effectiveness of our Medical Department's support capability. Recruitment and retention are key areas where you can help. Be proud of being a Navy medical officer. Talk Navy and be Navy. Close the gap between Navy medicine ashore and with the fleet.

The time of the two caste Medical Corps is over. We cannot function if those of our corps assigned to the operational forces feel like second class citizens. A tour of duty in an operational environment is rewarding and educational. All our junior physicians must have the opportunity to serve in that environment.

There is little question that the traditional and long revered role of the graduate training hospital with its concentration of specialized and technical resources has resulted in the highest quality of medical care. But as you begin your deliberations this week you must not forget the primary reason for graduate training programs is to provide trained specialists to support the operational Navy and Marine forces.

Under the leadership of our new Surgeon General, VADM Cox, we must and shall put the emphasis on readiness. The theme of this conference is "accent on readiness"—fleet support through medical readiness, medical readiness through education and training.

Current Status of Medical Department Manpower

RADM Melvin Museles, MC, USN
Assistant Chief for Professional Development
BUMED MED 02

I want to extend my personal welcome to you all again this year. As many of you may recall, I arrived in MED 02 just over one year ago and I pledged my office and my staff to provide you the necessary guidance and the quality staffing required to support our operational commitments and maintain quality education and training programs. The past year has been a most difficult one, but I believe that in spite of our critical specialty shortages, we have met our objective. All members of

the Navy Medical Department should be aware of their dual roles as military specialists and as clinical specialists.

As RADM Sparks indicated earlier, "readiness" is the key word in our defense organizations today. Whatever we do today and whatever we plan for the future must involve readiness. We continue to review our requirements and tailor educational programs to meet them. We rely upon you as our leaders to carry this message back to your institutions, to your staffs, and to your educational programs. All our education and training programs in peacetime must prepare us for the practice of medicine in all contingency situations. Let's remember that we really train physicians for war! Not a very pleasant thought, but everyone of us should think about this at least five to ten minutes every day. We are training to defend our country, we must be strong and we must be ready to support our Navy with the most highly skilled personnel available anywhere.

This past year, more than ever before since the Vietnam War, we have asked you and your colleagues for sacrifices. We have asked you and your staff, particularly the surgical specialists, to serve aboard ships and in isolated overseas assignments around the world, away from families and the expertise of the hospital environment. For those of you that served or whose staff members served, we are extremely grateful. There has to be a tremendous sense of satisfaction in knowing that you have served your flag and country well. Even though it is not expressed often enough, the American people do know what our soldiers, sailors, and airmen are doing in defense of this country and, as one of those responsible for their assignments as well as one of those Americans, I thank you personally for your support.

As Admiral Sparks also stated, the naval medical officer of today must make an early commitment to his dual role—that of the military officer and that of the physician. It is long overdue that we require all our medical officers to serve some period with the operational forces. You must assist us with this task. You must encourage the young medical officer to embrace this philosophy. As I indicated to you last year, the operational experience gained should be considered as part of their total educational continuum regardless of what specialty they eventually choose.

For the past several years, the majority of our young physicians have taken an operational year with the fleet or the fleet Marines after their GME-1 year. Most of them have enjoyed the experience and they continue to recommend we expand this program. Because of the international situation and the increasing operational commitments ahead of us this year, we are going to

TABLE 1. Initiatives

1. Operational Training to Support Fleet and Fleet Marine Requirements:
 - A specialized course in cold weather medicine
 - Combat medicine under a tri-service umbrella
 - Casualty care for dental officers
 - FMF training for all Medical Department personnel
 - Increased surgical team training
2. Specialized Short Courses:
 - Advanced Health Policy and Planning Course
 - Executive Medicine
 - E8/E9 Health Resources Management
 - Nurse Corps Management for three levels—junior, middle, and senior
 - Financial and Supply Management
 - Patient Services

task many of our specialists who have not served a tour of duty with the fleet, to take their turn alongside their surgical colleagues. I ask you to support us in this difficult task.

In spite of serious fiscal constraints, a renewed emphasis throughout all Navy medical education and training programs is being placed on preparing the professional to fulfill his role with the operating forces as well as providing quality care to all beneficiaries. Some of the initiatives undertaken by the Navy Medical Department over the past two years are shown in Table 1.

Outline of Initiatives

In spite of our problems you will see we continue to be extremely optimistic about the future.

This year we have 244 primary care medical officers serving on ships and with the Fleet Marine Force. We have a total of 950 GME billets authorized with 1,031 on board. We will place 256 medical officers into internships and 260 into residency training. This year we have had a record of almost 683 applications for residency training. We are selecting 223 from the fleet this year. Three hundred fifty-eight scholars have come into the Armed Forces Health Professions Scholarship Program (AFHPSP) from over 1,074 applicants. We have six Uniformed Services University of the Health Sciences (USUHS) graduates now in internship and

next year we hope to have 20 Navy students coming out of USUHS. By the year 2000, 20 percent of our corps will be USUHS graduates.

Family practice expansion continues to be one of our priorities. Although we have not met our goal of 280 family practitioners, we are training 76 currently and will start a new program at Bremerton this year with four first-year trainees. Although we have had recommendations to start training programs in emergency medicine, the BUMED Advisory Board has recommended against starting these programs this year.

Our physician's assistant training programs are flourishing at Portsmouth and San Diego. We have graduated 42 PAs this year and we are training 45 more. PAs have been assigned to all of our carriers and this year we have assigned one PA to DesRon 10 in Norfolk on a trial basis. If this is successful, we will eventually fill our nondeploying DesRons with PAs. We have developed a contingency role for PAs and a Reserve program is currently being staffed for implementation.

Recruiting continues to go reasonably well. Quality has continued to improve. We had a goal of 256 physicians this year and we project that we will recruit a total of 180 this fiscal year. We did not reach our goal but we feel the quality of our recruits is better than ever before.

Despite our encouraging numbers, and it appears that we will soon be at authorized end strength, the mix and distribution of our clinical specialists remains one of our most serious problems. We continue to have critical shortfalls in orthopedics and general surgery. Now, anesthesiology is predicted to be in serious difficulty this coming year.

The new compensation initiative, including the new physician's/dentist's pay bill, the 11.7 percent raise across the board, increased CHAMPUS benefits, and the Nunn-Warner bill with variable housing allowance and a 10 percent Basic Allowance for Subsistence (BAS) increase will add considerably to our pay checks and should improve both retention and recruiting. Never has the Congress pushed through so many pay bills for the military in one session. CNO promises to do more with requests for more selected reenlistment bonuses, increased sea pay, submarine pay, and more money in bonuses to the aviation community.

DOD, the Assistant Secretary of Defense for Health Affairs, and the three surgeons general are directing increased efforts this year toward increasing ancillary help. This problem has not been solved, but it is being addressed at the highest levels. Table 2 shows how we compare to our sister services. Table 3 shows what we need to reach parity.

TABLE 2. FY81 Tri-Service Medical Resource Comparison

Personnel	Army	Navy	Air Force
Mil E/S	39,647	23,076	34,810
Civ E/S	26,588	6,604	7,073
Total	66,235	29,680	41,883
Medical Personnel Per 1,000 Capita			
	Army	Navy	Air Force
Personnel to Total Beneficiary Population	20.7	10.2	13.5
Personnel to Active Duty Population	84.8	41.9	74.7

TABLE 3. Navy Medical Department Resource Increments Required to Reach Parity with Army and Air Force

One Time Increments		
For Parity With:	Army	Air Force
Personnel	30,692	9,646
Yearly Increments Over the 5-Year PPBS Cycle		
Personnel	6,138	1,929

Our Quality Assurance Division in MED 02 is about to complete its quality assurance manual and a revised instruction for use by all our facilities. This comprehensive manual will bring us into the next century with quality care guidelines surpassing even those of our civilian colleagues.

Before I give you an update on the status of our other corps, I would like to tell you about our detailers. As you know, the Medical Department detailers are now located at the Naval Military Personnel Command (NMPC). The move from BUMED was completed this June. The medical assignment and placement branch is operating in rather constrained quarters and with somewhat less ancillary support than they were afforded at BUMED. Nevertheless, we have every con-

TABLE 4. Navy Nurse Corps Personnel Profile End FY80

Strength	Authorized Billets	On Board	Men
RADM	1	1	
CAPT	64	59	
CDR	192	170	8
LCDR	550	509	124
LT	780	1,079	319
LTJG	729	696	194
ENS	309	142	36
Total	2,625	2,656	681 (25%)

fidence that they will remain responsive to BUMED's needs. MED 02 will continue to carry out personnel counseling, career planning, and the many other functions required of them.

Nurse Corps

Manning of the Nurse Corps has remained at or above authorized strength during the past year. Recruitment of qualified applicants has been excellent in spite of the shortage developing in the civilian community. Of the nearly 2,700 officers on active duty, 25 percent are male (Table 4). The demand for professional nursing care has been constantly growing due in part to increasing sophistication of medical capabilities. Care of acutely ill patients requires concentrated didactic preparation and expert technical skills. As length of hospitalization decreases for most patients, the degree of illness and average nursing-care hour requirements increases. Other factors continuing to influence the demand for nurses include the move from open bay wards to private and semiprivate rooms, the replacement of ward medical officer with physician teams, and the emphasis on preventive medicine and health maintenance. Expanded roles for nurses reduce the available billets in support of direct patient care. The number of authorized practitioners and anesthetists is unchanged at this time; however, it is anticipated that a number of new anesthetist billets will come on line in the near future. Many of these billets will support the Medical Department's operational commitment to anesthesia on board carriers. The retention of Nurse Corps officers is excellent despite co-location problems, increased numbers of dependents, pressures for more

TABLE 5. Billets in Support of Direct Patient Care

Navy	
Director of Nursing Service	24
Nursing Service Administrator	44
Patient Care Coordinator	109
Clinical Specialty Nurses	30
Operating Room Nurse	146
Nursing Education Coordinator	35
Nursing Instructor	59
Charge Nurse	300
Staff Nurse	1,057
Outpatient Care/Emergency Room	303
Total Navy Billets	2,107
Civilian Registered Nurses	857
Total Professional	2,964

TABLE 6.

Billets in Support of Direct Patient Care	2,197 (84%)
Plus: Anesthetists	65
Nurse Practitioners	87
Duty under instruction	94
Clinical Trainees	16
Headquarters Staffs	10
	272
Total BUMED Claimancy:	2,469 (94%)
Plus: Recruiting	17
CHNAVTECHTRNG	7
CINCLANTFLT	10
CMC	1
COMNAVCOM	1
CINCPACFLT	1
CHNAVPERs	1
TPS&D	118
	156
Total Nurse Corps Billets:	2,525 (100%)

education, and appealing opportunities in the civilian market.

Medical Service Corps

The procurement and retention of MSC officers has been good during this fiscal year. Of the 1,822 officers on active duty as of 31 July 1980, 865 are in health care administration, 467 in clinical health care specialties and 490 in support service and technology. Anticipated MSC end strength for FY80 is estimated to be 1,890 officers.

A breakdown of MSC billet distribution by functional activity shows six percent at headquarters staff activities, 64 percent in health care services and 15 percent in research, development, test and evaluation, and 15 percent with the operating forces and service support activities.

Sixty-five percent of MSC officers are designated as Regular Navy career officers. Attrition from the MSC is less than 10 percent of total strength per year; however, we do continue to experience a shortfall of captains and commanders to meet billet requirements in the Health Care Administration specialties.

CAPT Nelson's priority issues for the MSC in FY81 are to continue to analyze our billet requirements and officer qualifications inventory and to refine career planning models and requisite training and education in all MSC specialties to meet the requirements of our mission under standard and contingency conditions of operations.

Hospital Corps

The Hospital Corps is approximately six percent short of its authorized allowance.

The all-volunteer force concept increasingly restricts our choice of quality versus quantity.

Drug abuse exemption is now provided for entry into the HM "A" School for the experimental use (1-10 times) of cannabis only. In a recent survey, 75 percent of recruits are admitted marijuana users.

TABLE 7. Hospital Corps

Authorized	23,580
On Board	22,271
	1,309 Shortfall

First term retention, at only 39 percent, continues to be a problem.

We are experiencing difficulty in getting qualified volunteers for a number of "C" schools, even though the selective reenlistment bonus has been authorized for many of them.

Work continues on billet realignment, more effective utilization of hospital corpsmen at all pay grade levels and improvement of their career pattern and upward mobility opportunities.

A recommendation has been submitted to authorize EPMAC to coordinate the assignment of technicians with physician specialists.

Undersea Medicine

One of the operational specialties that is truly unique to the Navy is undersea medicine. The Undersea Medical Officer serves in a wide variety of billets in the fields of submarine medicine, diving medicine, and related research. Once again, we are assigning physicians to fleet ballistic missile submarines since the new Trident submarines have billets for Undersea Medical Officers.

Most of our Undersea Medical Officers come from Navy internships, but there is also considerable interest from the civilian community. At the present time, all Undersea Medical Officer billets are filled.

There is considerable opportunity in this field for the young medical officer aspiring to a career in Navy medicine. The transition from operational assignments to research is a particularly effective one. Of course there are also a number of Undersea Medical Officers who have gone into clinical specialties.

Under the new pay bill, board certification equivalency is available for the first time to those making a career of undersea medicine and aviation medicine.

Aviation Medicine

The flight surgeon is responsible for providing acute care to Navy beneficiaries. He is also especially trained to recognize and modify the human factor aspects of aviation. No other Navy medical officer is so directly involved with aviators.

As of 2 Aug 1980, aircraft accidents had cost the Navy \$239,000,000 in calendar year 1980. During this same period there were 65 aviation deaths. Pilot factors were caused in 50 percent of these accidents. Human factors, including pilot factors, maintenance error, supervisor error, etc., were involved in 64 percent of these accidents.

Aviation commanders are condensing the shortage of flight surgeons Navy-wide. We have 231 billets with

TABLE 8. Hospital Corps Billets

Current Authorized HM Billets (3/31/80)		23,580 (100%)
Less Other Claimants:		
Central Operating Activity	1,008	
Commandant of Marine Corps	3,161	
CINCLANTFLT	1,334	
CINCPACFLT	1,177	
Chief of Naval Reserve	566	
Chief of Naval Personnel	150	
Chief of Naval Education & Training	840	
Army	101	
All Other Claimants	203	
Total Non-BUMED Billets		8,540
Billets in Claimancy of Chief, BUMED		15,040 (64%)
Less NEC'S:		
Laboratory Technicians	1,372	
Direct Physician Support	776	
Special Procedures Technicians	627	
X-ray Technicians	609	
Pharmacy Technicians	588	
Operating Room Technicians	539	
Advanced Hospital Corpsmen	460	
Neuropsychiatric Technicians	324	
Preventive Medicine Technicians	280	
Biomedical Equipment Technicians	252	
Physical & Occupational Therapy	168	
Field Medical Service	27	
Total Billets Assigned NEC'S		6,022
General Service Hospital Corpsmen		9,018 (38%)

165 filled for a level of 71 percent. The dollar value of aircraft lost in crashes adversely affects the total Navy budget, including our Medical Department. We could build 10 medium-sized medical centers every year with a like amount. The flight surgeon is an important resource in the prevention of loss of aircraft as well as lives.

As I stated earlier, the program directors, and leaders, have the greatest ability to create a positive attitude about the fleet among your junior officers. I hope you will emphasize our programs in both aviation and submarine medicine in an effort to actively encourage and recruit the young medical officer to pursue a career in one of these exciting specialties.

TABLE 9. General Service Hospital Corps Billets

General Service Hospital Corpsmen	9,018 (38%)
Less: Students	2,231
Clinics	1,073
Headquarters	65
Schools Staff	128
Inservice Education	24
Research Commands	77
EPMU'S	6
Others	53
Total	3,657
Inpatient Care Facilities	5,361 (23%)

Medical Corps Status Report

CAPT R.H. Bodenbender, MC, USN
Director, Medical Corps
BUMED MED 21

At the opening plenary sessions of SAC XI we predicted that we would be at end strength by October 1980. Last year we were 42 short. This year we will only be 26 short and our projections for FY81 are to be at least 20 over billet strength. So when you look only at the overall numbers we are getting better each year. That is not the problem. We have critical shortages in orthopedics and general surgery. Anesthesia looks like the next serious problem.

Table 1 shows our updated billets and on-board strength. You can see that our billets have decreased more than our on-boards resulting in our so-called "improvement." Remember, we need at least 400 more billets to take care of our entire beneficiary populations.

Table 2 shows the basis of our billet numbers. This basis is active duty strengths only, a percentage of the sum of these five numbers. Our authorized strength is not based on our peacetime needs which include care of dependents and retired populations.

Our female strength is approximately seven percent. We now have two female captains. The number of females in the Medical Corps is bound to increase in the future and here we have a detailing problem with our operational billets—only 16 for females aboard ships—and none with the Marines.

Traditionally, each year at SAC, this code has presented the profiles of our on-board strength in most of our specialties. This year I would like to begin this review with our two most critical shortage specialties, orthopedic and general surgery.

We have 59 orthopods on active duty, with 113 billets and a requirement of 155. You can see the problem in Table 3. We have 100 general surgeons, 130 billets, and a requirement of 163.

With only 59 orthopedic surgeons aboard on active duty, we all understand our almost impossible job to provide care just to our active duty personnel. At the present time, we have only one orthopedic surgeon in Europe, one at Roosevelt Roads, and four in WestPac. Our recruiting has been good. We brought seven on active duty last year and eight this year. However, we continued to lose ground with retirements and RAD's. Camp Lejeune just lost two orthopedic surgeons, one by retirement and one by resignation. That left only one fully trained orthopod just out of his residency. So we

TABLE 1. Medical Corps—Worldwide

End Fiscal Year	Authorized Billets	On-Board
1969	4404	4482
1970	4231	4529
1971	3955	4253
1972	3858	4450
1973	4173	3954
1974	4143	3403
1975	3757	3391
1976	3656	3439
TQ	3696	3628
1977	3651	3524
1978	3636	3467
1979	3625	3583
1980	3600	3574

On-Board strength projected through 30 Sept 1980

TABLE 2. Medical Corps

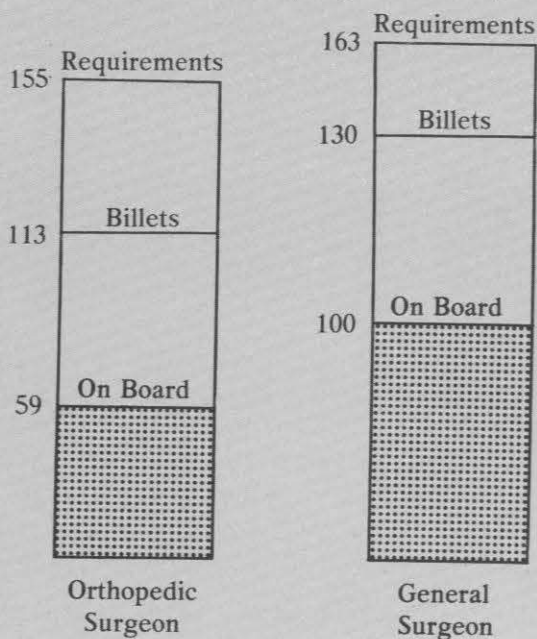
The Total Authorized Number of Officers of the Medical Corps on the Active List is 65/100 of One Percent of the Sum of the Following: (Title 10 USC)

- Authorized Strength of Navy and Marine Corps Officers
- Authorized Strength of Enlisted Navy and Marine Corps Regulars
- Authorized Strength of Midshipmen at Academy
- Actual Number of Permanent Warrant Officers in Regular Navy and Marine Corps
- Actual Number of Midshipmen on Active Duty for Flight Training

now have, in effect, another TAD plan to provide interim help until another surgeon arrives. It's like putting fingers in a dike.

We could foresee the shortage of general surgeons last year. Resignations, RAD's, and retirements have increased this spring and summer to the point that now we have only 100 on active duty, two are PCS'd to

TABLE 3. Critical Manpower Shortages



carriers, two are in full time research and two are part-time chiefs of clinical services. We are 30 less than authorized billets but even more important we are now over 60 surgeons short of being able to support our immediate contingency requirements for all our surgical teams and fleet support.

We are "burning out" these general surgeons and they are leaving our ranks as soon as their obligated service is completed. With continued tasking for TAD carrier support, and Adak and Keflavic coverage, I foresee more attrition.

Our recruiters are working hard and have not let us down. We have brought 10 surgeons on active duty this year, even one for a PCS tour on a carrier.

In anesthesia, although the overall deficit looks small—four—this reflects a loss of 23 teachers this summer and fall. With a total training staff of 48 in the four programs, you can readily see the problem. This represents almost one-half our teachers. In addition, we projected that we will lose three of our program directors next year.

Even in a small specialty like dermatology, we have a significant deficit of eight.

Emergency medicine is just emerging, so to speak, although we have only one valid billet and hope to develop an inservice training program in the near future. In the meantime, we are using outservice training—we currently have three in outservices billets.

Family practice looks good, but remember, our

ultimate goal is 280 and we will begin a new program at Bremerton next summer.

We are still short of flight surgeons; however, we have 16 more than last year.

GME continues to be over our authorization by 70.

Internal medicine numbers look good, with 242 billets and 273 aboard, even above our specialty requirements. The problem is that the mix between subspecialists and general internists is not optional. Several years ago we were experiencing acute shortages in cardiology and other subspecialties and last year we lost 12 gastroenterologists. But with intensive recruiting and extensions on active duty we are now better off in cardiology than we have been for many years. Currently we have 24 cardiologists on active duty. We are now able to send cardiologists to our family practice hospitals and not just into our subspecialty training programs. Even with the loss of the gastroenterologists, we have kept our heads above water in that field now with 16 GI men aboard. Last summer we started to experience a decreased number of general internists. In fact, the entire output from our four training hospitals yielded only three general internists. All the others progressed directly into fellowship training. Fortunately, the scholarship NADDS program baled us out with 34 general internists to fill in the gaps. We also had 16 recalls to active duty. This year, however, we had only seven NADDS internists from civilian residencies and a grand total of 14 from our Navy programs. As a result, this year we experienced a shortage of 18 general internists.

I anticipate that the internal medicine training directors during this week will address this ongoing problem of staffing. I forecast next year will also be a problem since over 50 percent of our internists scheduled to finish in 1981 have already applied for subspecialty training.

Navy neurosurgery has done better than our sister services. In fact we have neurosurgeons on loan to Clark Air Force Base, Madigan Army Hospital, Brooke Army Medical Center, and even in Landstuhl, Germany.

Ob/gyn is gradually decreasing in numbers, now down eight from last year. Remember, we closed six services to reach that level, so we really have a significant problem.

ENT has also experienced a notable loss during the year; 11 below billet strength, but 16 below requirements.

Pathology looks very good. In fact, we had to cut off the recruiting pipeline here. We just do not have any vacant billets.

**TABLE 4. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Orthopedic Surgery	113	155	59	-54
General Surgery	130	163	100	-30
Anesthesiology	95	110	91	-4
Data projections through 30 Sept 1980				

**TABLE 5. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Dermatology	41	45	33	- 8
Emergency Medicine	1	50±	2	+ 1
Family Practice	128	160	148	+20
Flight Surgery	231	290	165	- 66
GME	950	1031	1020	+70
Data projections through 30 Sept 1980				

**TABLE 6. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Internal Medicine	242	270	273	+31
Medical Research	63	64	37	- 26
Neurology	26	25	24	- 2
Neurosurgery	12	20	18	+ 6
Nuclear Medicine	7	10	5	- 2
Data projections through 30 Sept 1980				

**TABLE 7. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Obstetrics/Gynecology	119	155	113	-6
Ophthalmology	50	52	45	-5
Otolaryngology	50	55	39	-11
Pathology	71	83	87	+16
PCMO	454	461	491	+37
Data projections through 30 Sept 1980				

**TABLE 8. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Pediatrics	191	215	207	+16
Psychiatry	94	120	102	+8
Preventive Medicine (Gen/Occup)	33	42	25	-8
Preventive Medicine (Aero)	40	40	32	-8
Radiology (Diag)	81	121	83	+2
Data projections through 30 Sept 1980				

**TABLE 9. Navy Medical Corps Profile by Specialty
1 October 1980**

Specialty	Authorized Billets	Specialty Requirements	On-Board	+/-
Radiology (Ther)	7	8	7	0
Surgery (Plastic)	9	14	7	-2
Surgery (Th & Cvs)	17	25	13	-4
Undersea	45	47	50	+5
Urology	35	60	33	-2
Data projections through 30 Sept 1980				

There are no real problems in the specialties illustrated in Table 8.

The group in Table 9 also looks good, but we really need a few more thoracic surgeons.

We have a total of 244 PCMO operational billets that must be filled in the summer of 1981.

We now have 164 physicians in civilian specialty training programs and we plan to increase our annual input to about 130 per year. Note that we really won't start to feel the impact until the mid 80s. In 1985 we should have eight general surgeons and six orthopods coming on active duty.

In 20 years, we envision that approximately 20 percent of the Navy Medical Corps will be graduates of USUHS. This year the charter class graduated giving us six Navy interns. The class of 1984 will yield 37 Navy physicians. This class just began its studies last month, and please note that 30 (or 23 percent) are females.

Last year we said the worst is past and the future is indeed bright. In reality however, we will probably have some lean years ahead. It's been said that we don't have problems—only opportunities. I believe that with the kind of talent, professional ability, and dedication of the people in this room, I know we will continue to be proud of the job we do.

The Dental Corps and the Readiness Theme

RADM James D. Enoch, DC, USN
Assistant Chief for Dentistry and Chief, Dental Division
BUMED MED 04

The themes of the 12th Annual Surgeon General's Specialties Advisory Conference are indeed appropriate: fleet support through medical readiness and medical readiness through education and training are most important and mark the transition of the Navy Dental Corps into the 1980s.

One can sense the urgency of this year's committee meetings and this conference as we all address the contingency and operational requirements of the Medical Department of which the Dental Corps is a vital part. This urgency is marked by BUMED's commitment to fleet and Marine Corps support, along with the recognition that education and training are most essential to recruitment and retention of Medical Department personnel.

Within the Dental Corps, and, most particularly the Dental Division, the staff, with the assistance of our specialty consultants, has been and will be addressing

the needs for all the various dental specialists, as well as other biomedical, education, and research personnel. This review is to assure the proper mix of personnel for dental and medical centers, and within the Dental Corps to accomplish the missions of the Dental Corps, to insure optimal patient care, and to maintain the state of the art in the practice of military dentistry.

Each day, it seems that we, at the Dental Division, are given new parameters to the Medical Department's readiness mission; however, the objectives are well defined. Our task is most often the alignment of personnel resources and the funds to manage these elements within a given, often seemingly unrealistic and always "urgent" time frame.

As in the other corps, we in the Dental Corps, concentrate our efforts on the most important component of any weapons system—the person. People maintenance is indeed the major part of our fleet support. The requirement is to maintain the individual sailor or Marine in a dental condition of operational readiness for worldwide deployment. This requirement is ever present and continues to be the main thrust of our Dental Corps activities.

Until the very recent past, the Dental Corps was expected to have the right personnel and resources in the right place to meet a given mission. At this SAC meeting and as the Dental Division's Training Committee convenes this week, it becomes readily apparent that the presence of the dental specialist requirements at medical and dental centers and at sea will be increasingly more difficult to meet in the future.

The Dental Corps, as well as the entire Medical Department, recognizes the increasing patient care needs and fleet support requirements, a continuing explosion of technology and improved patient care procedures, and the constant, most commendable desire for the personal development and satisfaction of every enlisted and officer member of the Medical Department team.

A case or two in point. There is a present and apparently continuing requirement for a general anesthesia capability of our Indian Ocean and other ocean fleets. All available oral and maxillofacial surgeons, including those who have just completed their three-year residencies, have been assigned to aircraft carriers, yet, there are not enough of these part-time anesthesiologists to meet all commitments. The dental officer cannot be the anesthesiologist and surgeon at the same time; this reduces our surgical capability. Practically, this means the residents will be delayed two or more years in obtaining Board Certification which, in turn, reduces the boarded oral and maxillofacial surgeons for medical and dental center assign-



RADM Enoch



CDR Christian



CDR Mohler (Ret.)

ment and to staff or direct hospital-based training programs or dental center fellowships. Again, fleet support is the most important game in town and all concerned recognize this and fully support the readiness requirement.

Medical and dental educational journals have documented the increased number of health care professionals that will soon enter into the medical/dental resource pool. There will be a need to provide for their hospital-based graduate education. It has been estimated that by the late 80s, one-half of all graduating dentists will request an additional year or two of training before active solo or group practice. The general dental practitioner is, and will always be, the backbone of the naval dental health care system and must receive appropriate training. It would appear that all the corps within the Medical Department face the same or similar challenges in fleet support, education, and training including the following:

- To define and prepare for the fundamental fleet support role, as well as the ever changing scenarios of conflict.
- To educate and train for primary military missions, and where and when possible, couple this training to our peacetime needs.
- To recognize that education and training are essential to the recruitment and retention of all Medical Department personnel.
- To constantly monitor the specialty and general practice training programs to insure proper funding and support personnel and, when required, to train in the civilian community.

- To develop training programs, including those for hospital corpsmen and dental technicians, which support the level of care or state of the art that our doctors, nurses, and allied health personnel are providing.

- In areas of critical shortages and fleet support requirements, to include the vast and available Naval Reserve, Medical Department communities, and educate and train the Reserves, as needed. This is in support of the Chief of Naval Operation's "One Navy" concept.

Ladies and Gentlemen, the challenges are great, the time together at the SAC meeting is precious and always too little; however, the demand to meet the fleet support requirements is here today and for the foreseeable future. Your deliberations this week and the mix of specialists that you plan for tomorrow will determine the operational readiness of our Navy and the Nation.

A Recruiter's Point of View

CDR E.R. Christian, MSC, USN
Head, Medical Programs Branch
Navy Recruiting Command

Each and every one of you play a vital role in the physician recruiting process. We cannot get the quality or the numbers of physicians we want in the Navy Medical Corps without your help.

We are salesmen, and like all salesmen, our success in the Navy Recruiting Command is measured by production. If the recruiter recruits the number of people he has been assigned to recruit, he's a success. The enlisted member can receive special promotions. The officers get medals. But the recruiter who doesn't make his goal is a failure.

We haven't yet met our goals, but we may be able to over the next two to three years with your help. I would like to thank all of you who have been a great deal of help to us in arranging interviews, physicals, and entertaining physician applicants that we have brought to your medical facilities.

A recruiter spends a great deal of time with each and every applicant. When a recruiter loses an applicant because a negative factor has been introduced into the recruiting process by someone else, it's extremely demoralizing, especially if the recruiter has spent a lot of time with the applicant, and if he's flown him across the U.S., and spent his own money entertaining that man. Our recruiters can get up to \$40 a month reimbursement for money spent on applicants, except when they are traveling with them. Many of our recruiters spend up to \$200 a month of their own money on applicants, especially on our physician applicants.

We have had a significant number of applicants lost through carelessness. Recently, a surgeon applicant had to wait for four hours for an interview while his interviewer attended a picnic. Other applicants have been treated in a less than hospitable manner when they arrived at our medical facilities. We have promised applicants jobs at specific facilities and then found there were no billets to back up those promises. We have promised grades that an individual's experience and training could not support. We have assigned young, disenchanted interviewers who ran the Navy down at the interviews. These are just a few examples of what has occurred this past year.

We desperately need your assistance to prevent this from happening. All the previous speakers have emphasized the importance of recruiting in our Medical Corps. As long as our travel money holds out, we will continue to bring our applicants to the places they are likely to be assigned. This may not be possible throughout the year because of fiscal constraints. We may be forced to take applicants to the nearest facility, where we can set up an interview with an active duty physician. Even applicants for training programs will have to be taken to the nearest facility where there is a training program of the type they are requesting. We will request the program director to interview the applicant and pass on the information to the program director that has an opening.

We look to you to provide the professional interview for the applicants and to examine their ability to practice their specialties and to be acceptable members of the Navy Medical Corps. What's the applicant's motivation? Is he or she running from something? Is the applicant enmeshed in legal problems? Can the applicant communicate properly? We ask you to be candid with us on your interview sheets; these sheets are destroyed after final action is taken on an applicant's package. Please return these forms to the recruiter as soon as possible. We lose too many physicians through bureaucratic slowness.

We ask that you not discuss rank, pay, or duty station. Leave that to the detailers and recruiters. They can provide more information after an assessment has been made of that applicant's case at BUMED and BUPERS.

Any physician who does not meet all the qualifications must get a waiver approved by OPNAV. We do not have the authority to grant waivers either in BUMED or in Recruiting Command. Be careful when you're talking to foreign medical graduates. Many are not licensed and OPNAV has turned down several this year.

I would like to leave you with one, last thought. As each speaker has already mentioned, training is one of the bases of recruiting. You have, in front of your committees this year, many civilian applicants. I realize that the training must first go to the young physician coming off an operational tour. I ask that our civilian applicants at least get a good look because training is one of the few things we have to sell in today's market place. We must entice the young physician into taking a good, hard look at the Navy.

Educational Programs and Scholarships for the Navy Medical Department

CDR Clarence B. Mohler, MSC, USN (Ret.)
Head, Procurement Programs and Accessions Branch
BUMED MED 214

I will talk about the Armed Forces Health Professions Scholarship Program. The Navy has once again filled all scholarship billets, with many outstanding candidates to spare. We can be proud of our track record in recruiting students in competition with the Army, Air Force, and the Public Health Service, and I understand soon the Veteran's Administration will also have a program.

I would like to show you that record and give a vote of thanks to our recruiters for establishing it.

Our scholarship program today is filled with an outstanding group of young men and women who are pursuing their education in schools throughout the country. We have good representation in most schools with a high concentration in this area. We have over 150 scholars in medical school at George Washington and Georgetown Universities alone.

Last year, I spoke to you of the loss of scholarship students, usually at the end of the education cycle. We noted that losses could be attributed to:

- conscientious objection to military (all male);
- dependency (all female);
- illness (and sometimes death); and
- moral turpitude (misconduct) and academic failure.

We continue to lose students but less frequently. This year, we have not lost a single student to conscientious objection. Our recoupment program for the payback of monies spent on scholars has been improved. We now have a JAG officer who has taken over the recoupment program and he has been most aggressive in his efforts. He is not only processing new arrivals, he is also looking into those cases of the past.

This year, no student has been lost to dependency. In fact, a woman who was being processed for discharge last year has changed her mind. The intern selection panel here at SAC XII will consider her application for Navy training to begin in 1981.

Most of our losses this year were due to illness or injury. We recently lost one student because of a tragic accident and two others through serious disease.

No students have been lost this year through misconduct, although one senior has been suspended.

The number of losses we have had due to academic failure is down; this year we lost only three out of approximately 1,500 students.

The intern program is alive and healthy. We continue to have ample candidates to fill all programs and have some to spare. Scholarship students, who are permitted to state a preference for Navy programs as opposed to civilian, continue to select Navy in about a 10 to 1 ratio. The quality of the candidates is high. Of those applications reviewed last year, there was not a single candidate that could be classified as unfit for training.

For this year's program, we have 459 applications for about 250 billets. These applications have all been reviewed and scored by a group of medical officers and placed on a rank order list according to best qualified, second best, etc. Here this week, actual assignments will be made. I look forward to working with the intern selection group that will accomplish this.

Tri-Service Combat Casualty Care Course

LCOL Barry W. Wolcott, MC, USA*

The Tri-Service Combat Casualty Care Course, commonly called C4, was developed and conducted this past spring to prepare military medical officers to function on an integrated ground battlefield. The course was conceived in February 1980 when a tri-service general officer ad hoc steering committee charged a curriculum committee with designing and academically rigorous course to teach entry level military physicians skills essential to their mission. That mission was to treat patients during their first 12 hours after injury at forward locations on a modern mid-to-high intensity ground battlefield.

The resulting curriculum called for 60 hours of instruction over six days and addressed three major roles of military physicians in this setting:

- The primary care of individual battlefield casualties (41 hours)
- Supervision of enlisted medics (11 hours)
- Medical officer functions at the maneuver battalion level (8 hours)

Twenty-two of the 60 hours were didactic; 27 involved practice of motor skills, and 11 were small group activities. The course was accredited for 53 Category I CME credits by the AMA.

The first two iterations of this course were hosted by the Army at Camp Bullis, TX, in April and May of this year under the academic auspices of the Uniformed Services University of the Health Sciences. Major support came from medical and line units of each service. Each course was one week in length and has 120 military physician participants (60 Army, 40 Navy, and 20 Air Force) on duty with or assigned to operational units.

The course components included those emergency procedures necessary to save lives on the battlefield, such as emergency access to the airway, the management of penetrating wounds to the chest, and the management of gunshot wounds.

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LCOL Wolcott

Most civilian-trained physicians think that a bullet wound to an extremity produced by a low-velocity handgun—the typical “saturday night special”—can be treated by relatively minor local debridement. Few entry-level military physicians realize what a high velocity military round does to an extremity, and that proper care involves extensive debridement.

Most civilian-trained physicians associate emergency medical procedures with an environment such as a modern, equipped emergency room. The situation they will likely encounter in combat is quite different.

In order to effectively supervise enlisted corpsmen, military physicians must be aware of the basic skills taught the combat medic. These skills such as bandaging, emergency care of life-threatening wounds, and stabilization of extremity injuries are not usually taught by medical schools.

In addition, the course participants became familiar with the evacuation chain for combat casualties beginning with manual carries, litter transportation, front line ambulances, field ambulances, field expedient-use of nonmedical vehicles, air evacuation helicopters, and fixed wing aircraft. Again, civilian medical schools do not train physicians in these aspects of patient care.

In learning to care for chemically contaminated casualties, the physicians reviewed the use of individual protective masks and protective garb. They were then taught how to decontaminate chemical

casualties, and how to care for them in the field.

Didactic material included a threat briefing and lectures in standard classrooms, as well as lectures in less traditional academic settings.

One of the course objectives was to provide participants with a better understanding of what the combat units they support actually do, and what is expected of physicians as officers beyond what is expected of them as doctors. They were, therefore, put through a series of leadership reaction exercises to test their ability to combine nonmedical leadership skills with medical practice in battlefield situations. In a typical exercise, they were told that their small group had been cut off behind enemy lines and had but 45 minutes to move to a helicopter rendezvous point. Six Marines were provided for a security element, and they were given a map and five minutes to organize before moving out. Initially, they had to negotiate a 40-foot cliff. They then moved along a rocky creek bed with the Marines providing flank security. Suddenly, they took both fire and casualties. They then had to treat the wounded and transport them to the rendezvous point, only to find yet another physically demanding obstacle in their path which had to be crossed.

Nothing these physicians had experienced before this course pointed out so dramatically the requirement for military physicians to be physically fit. Likewise, the Marines’ ability to function professionally, in what to the physicians was a strange and threatening environment, gave them new respect for the enlisted soldier, airman, or Marine.

The final exercise of the course was a mass casualty exercise at a division clearing, utilizing realistically mouldaged casualties. This exercise emphasized triage and the practical use of field medical facilities.

Of importance equal to the formal teaching aspects of the course was the opportunity for participants to actually live in the field. Recent experience has shown many military physicians lack basic field “survival skills” and are reluctant participants in field training exercises partly because they are embarrassed by this lack of knowledge. During the course, the physicians learned how to assemble and wear field gear, how to put up tentage, and how to live in the field. In a setting of 18-hour days, the fatigue of combat medicine was soon clear to everyone.

Student response to the course was uniformly positive, with many of the participating physicians reporting it to be the best one-week learning experience they had attended in or out of the military. The combat casualty care course will be taught four times in FY81. It is a long-range goal to incorporate such courses into the entry level education of every military physician. □



Soviet Naval Medicine

CAPT R. Paul Caudill, Jr., MC, USN

Training a Soviet Naval Physician

Part three in a continuing series

Mark G. Field, Ph.D., has published several articles concerning the health professions in the Soviet Union. In 1966, while a professor of sociology at Boston University and an associate with the Russian Research Center of Harvard University, he published information concerning medical education in Russia. The following information is taken from that article.

Preliminary Training

The medical education of Soviet physicians normally began at the completion of secondary school, when the student was 17 or 18 years old. Medical education required six years of study, the first two of which were much like our premed courses. The graduating physician was not a "doctor" in the sense traditional in the U.S.; the individual's degree was similar to the Bachelor in Medicine degree granted in England.

The professional training was

given in one of two kinds of institutions, a medical institute independent of a university, or an institution within a university.

After completing the basic course, a specialty could be obtained through one of several routes. The physician could work for several years in a clinic or hospital in a supervised role. Another route was through the Institutes for Advanced Training of Physicians where, typically, a period of three years of work led to eligibility for certification as a specialist.

Dr. Field described a definite distinction between individuals who remained in clinical practice and those who entered research or teaching. Advanced academic degrees were available to those who chose the latter two courses. Two advanced degrees were described—the Candidate of Medical Science, similar to a Master's Degree in Medical Science, and the Doctor of Medical Science. The doctorate was the highest medical degree. The candidate and doctor degrees were most commonly obtained by those of advanced experience and some years into their careers. Both de-

grees were said to bring considerable status to their holders, and concurrent social and economic advantages. (1)

In another article, Dr. Field noted that before 1917, less than 10 percent of Russian physicians were women. By 1928, 45 percent of physicians and stomatologists (the equivalent of dentists in the U.S.) were women. By World War II, 62 percent were women; and in the 1950s, more than 70 percent were women. The trend was seen to be reversing as the percentage had decreased from 76 percent in 1960 to about 72 percent at the time of the article. (2)

Dr. Field observed that female physicians in the Soviet Union often maintained domestic roles in addition to their professional roles. The style of life in the Soviet Union, coupled with the lack of both time-saving appliances and domestic servants, created a most difficult environment in which the female physician had to work. There could be no question that this situation would complicate both the productivity and personal lives of female physicians. (3)

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Dr. Field also noted that, according to available information, the input of women into medical education in the Soviet Union, had decreased from an earlier 85 percent to 65 percent in 1966 or 1967. (4) It may be approaching 50 percent at the present time. The reason for this shift might be because of productivity, based on considerations noted in the preceding paragraph, or because of military considerations centering on the need for a larger pool of male physicians for combatant units. Although female physicians serve on merchant vessels, for example, physicians aboard naval combatants are believed to be male. "There are no women in the navy as such." (5) Women do serve in naval auxiliary organizations.

Special Education

Medical education for Soviet military physicians often takes place in the military medical academy, VMEA, discussed in part 2. Those who are to become naval physicians are identified early in their educa-

Although female physicians serve on merchant vessels, physicians aboard naval combatants are believed to be male.

tion. The naval emphasis begins during the preparatory camp assembly, when ships' regulations are studied, along with general military training and the study of sailing and the operation of ships' boats. In the academy curriculum, time is provided for the study of the organization and tactics of the naval medical service. Areas of study include tactics, navy combat facilities, naval and radiation hygiene, physiology

of underwater cruising, rescue, and naval hospital surgery and therapy. Other naval courses include the history of naval art, medicine, and geography. Diving training is given the future naval physician, and hygiene studies are carried out on ships of the Leningrad Naval Base. (6)

The fleet medical environment is one area of emphasis. After the first course of their education, students are assigned to shipboard practice as sailors on surface ships. After their second course, they work as corpsmen on submarines. After their fifth course, the probationary period (described later) begins.

One author stated that the education of a Russian military physician could be said to take place in three phases: study in precincts of the university under the guidance of the staff with field exercises, instruction with troop units or on vessels during the probationary period, and through the independent study of the literature accompanied by participation in military and medical science clubs. (8)

At the military university, students received approximately 50 percent of their theoretical knowledge and practical skills under guidance of the staff. (In case of war, over 80 percent would be gained in support of troops at war, implying student assignment to combat support roles.) Approximately 45 percent of the student's knowledge would be gained through the probationary period. The probationary period, which follows university education, was intended to duplicate and reinforce the knowledge and skills acquired in the university. (9)

The education of the naval physician at the military medical academy has received considerable attention. As the navy has grown and emphasis on naval medicine has expanded, new chairs of specializa-

tion have been opened in which the majority of professional and teaching staff members are highly qualified specialists and teachers with "considerable experience in naval service." (10) In 1975, the naval service was providing special training for its physicians, while the other armed forces trained only generalists. The special training in naval medicine was said to be advantageous, and the method was recommended to the other services. (11)

One of the tasks accomplished by the academy was that of advisory support of fleet medical units. The Chair of Naval Surgery of VMEA provided advice to fleet units con-

The probationary period, which follows university education, was intended to duplicate and reinforce the knowledge and skills acquired in the university.

cerning various medical and surgical matters, such as the specifics of linen and surgical packs for use aboard submarines. (12)

The academy apparently had ample feedback from the fleet. Noting an increase in the number of emergency surgical procedures performed at sea yearly, the academy was said to be working to improve training. A two-stage course in surgery and therapy was taught from 1970 to 1972. (13)

Another source of feedback came from the academy's graduates. In 1968, the Faculty Command and Department of Organization and Tactics of the Naval Medical Service sponsored a meeting of academy graduates of the preceding five years to review the education process. (14)

One author criticized training inadequacies in certain areas of concern to the navy, including assistance at sea, rescue assistance on surface vessels, and specific diseases with which shipboard physicians must deal. He urged strong attention to material and instructional methods dealing with thermal injuries.⁽¹⁵⁾ However, the same author felt the academy's general medical training was totally satisfactory in fulfilling the requirements for naval physicians. He agreed with other Soviet authors that training in pediatrics and obstetrics and gynecology should not be diminished for future naval physicians.⁽¹⁶⁾

The author saw a need for further improvement in special training of

. . . the [Soviet] naval physician was expected to be conversant in medical geography, hydrology, meteorology, and ichthyology.

shipboard physicians. That training, he felt, should be accomplished by using navy physicians already qualified for shipboard duty. One method would be by participating in exercises of one of the institutions of the medical service of the Leningrad Naval Base, such as the Kronshtadt Naval Order of Lenin Hospital.⁽¹⁷⁾

In order to accomplish the rapid expansion of medical knowledge, courses and learning methods would have to be improved and there would have to be a review of and editing of older materials.⁽¹⁸⁾

In the military medical academy, programmed education was used in the teaching of military medical disciplines. A programmed study aid dealt with the organization of combat medical training. The

method included an audiovisual device with a self-testing mechanism. The author felt this method improved the teaching process "without replacing in any way the traditional forms of teaching."⁽¹⁹⁾

The literature described innovative teaching devices. The Gorkiy Medical Institute employed a unique method of training in triage and evacuation. The method used various teaching devices, including "training stands," a kind of mockup of "first and second class ships." These devices facilitated review of "medical sorting of wounded and casualties" and taught triage and movement. It was possible to accomplish four hours of training with preparatory study, grade exercises of judgment, and perform practice. The course reviewed the priority of casualty movement and selection of cases for surgery using written treatment cards. The author saw this method as useful both for training and for an exercise.⁽²⁰⁾

The literature recognized the awareness of the importance of readiness for sustained operations of naval task forces at sea. Physicians who served during those sustained operations were said to require broad diagnostic and therapeutic skills as well as emergency and trauma expertise. Additionally, the naval physician was expected to be conversant in medical geography, hydrology, meteorology, and ichthyology.⁽²¹⁾

Teachers and departments of the academy were responsible for monitoring the best students. Those recognized as best trained and most capable, were carefully scrutinized for selection for training in "cavitary operations" in their fifth course in the academy.⁽²²⁾

The opening of the new Kon-yashin Hospital in Leningrad expanded the capability for training naval surgeons in postgraduate courses. It housed the Number Two

Clinic and Chair of Surgery for the postgraduate medical education of VMEA students. Some advocated the postgraduate course of training in surgery for naval surgeons. However, another author insisted that the time had come to have all academy graduates assigned to naval ships after they completed their state exams and received their

The role model presented by faculty members who are experienced in sea duty is one that could serve to prepare the minds of students for both the challenge and the rewards of such duties.

diplomas. They would receive their primary specialization in surgery and urgent therapy, not as a "naval intern" but rather in the various clinics of the academy. Four to five months of study were considered adequate for the requirements of a naval physician. The study would be completed during the fifth course, prior to graduation from the academy.⁽²³⁾ Upon completion of the fifth course, the graduate would proceed with preparation for sea duty.

Education of the student included heavy emphasis on national and political indoctrination. Additionally, accomplished physicians and teachers were accorded deference and positions of distinction. For example, Professor Ivan Dem'yano-vich Zhitnyuk, Major General, Medical Services, was described as a senior naval surgeon, and his accomplishments as a "legendary teacher and party member" were recounted.⁽²⁴⁾

A 1976 article showed clear evidence of the attention which the Communist Party, the government,

and the leadership of the USSR Ministry of Defense were given to improvement of the training of military medical personnel. Over a five-year period there was an extensive expansion of facilities dedicated to training of military medical personnel. During that time, a laboratory training building of over 14,000 square meters was constructed, two cadet dining rooms were built, and several clinics and a number of training facilities and residential facilities were refurbished. It was said that in 1976 and 1977, three clinics and departments dedicated to education would be constructed, along with an officers' building with an 11,000-seat auditorium, an officers' mess, and other facilities. (25)

Dr. Field's articles demonstrated his extensive research and study of the structure of Soviet medical education and health systems. The information in this chapter is but a small portion of that provided in his publications.

It is interesting to note that future Soviet naval physicians receive early naval orientation in VMEA. A portion of the curriculum is dedicated to the study of naval medical disciplines and may be similar to programs provided by our own Uniformed Services University of the Health Sciences at Bethesda, MD, for those commissioned in the Navy and those now participating in the armed forces medical scholarship program.

The presence of a Faculty of Naval Medicine in VMEA is notable. The purpose of that department is to further the study of aspects of medicine unique to the naval environment and mission. The presence of such a department, and of faculty members of "considerable experience in naval service," must be significant in several respects. The role model presented by faculty members who are experienced in sea duty is one that could

serve to prepare the minds of students for both the challenge and the rewards of such duties. Additionally, the presence of seasoned and broadly experienced naval physicians in institutions of education and training would insure the constant tempering of the academic mind with the catalyst of experience. Finally, the work of the department could certainly include a role in providing direct support to those who serve at sea, through special continuing education courses and through programs developed to assist those who serve aboard ship. The provision of this department by the Soviet military medical education leaders shows an innovative foresight of great potential to their naval medical support organization.

The concept that an education unit would seek feedback from fleet units as to the relevancy and quality of their efforts is one which would serve the educational mechanism and the fleet units well if, in fact, it could be accomplished. Criticism and change are essential to healthful growth, particularly in organizations with a strongly authoritarian structure.

The "Probationary Period": Specialty Training

A phenomenon apparently unique to the Soviet naval medical service was the "probationary period." It followed the fifth course in the education of a Soviet naval physician and was widely discussed in the journals. The purpose of the probationary period included five general goals:

- to solidify and strengthen the theory previously learned;
- to acquire practical training in the

A number of articles indicate an apparent need for improvement of training for specific duties at sea. The same articles expressed concern on the part of leaders ashore for the performance of those who served afloat. Expressions of commitment to the common naval medical mission aboard ship were the rule.

A form of government that can rigidly control almost all Soviet publications could easily manage the literary image of organizational members. Whether the praise heaped upon those who serve at sea is real or contrived, the subjects of such praise must certainly feel honored. Undoubtedly, those just beginning careers in the naval medical service, aware of the honor accorded seniors and their accomplishments, would recognize the career and professional advantages of service with the fleet. To have young physicians seeking duty at sea as a career-enhancing opportunity could be expected to provide a highly motivated community of naval medical professionals concerned with performance and aggressive participation in the naval medical support mission.

- organization of combat readiness;
- to develop basic habits in methods of education and training for the entire ship;
 - to gain experience in organizing and implementing medical programs; and
 - to begin to actually carry out the duties of a ship's surgeon. (26)

The probationary period was normally a relatively short period of training, with no time to waste.

(The precise duration was not stated in any article reviewed, but this author's best estimate is that it is somewhere from three to nine months.) The typical probationer encountered problems soon after arrival, and worked independently much of the time to solve them, receiving less daily assistance from seniors than ever before.(27)

Teachers and command physicians had their own responsibilities during the three months prior to the beginning of probation. They were to discuss the problems of the probationary service aboard ship with the faculty council of the school. Teachers in charge of the probationary service normally held a conference on teaching methods they would use. They grouped students and met with those who were to administer the program.(28)

Before beginning the probationary service itself, the students went through a preparatory period in which they were given program information and study guides. The "methodical study aid" was said to be valuable in assisting the students in solving problems of their probationary service.(29)

As the students departed for the sites of their probationary period, faculty teachers also left for probationary service sites to work with receiving commanders. The faculty members assisted in assigning the students to the ships and conducted training in probationary service methods with flagship and ships' medical officers assigned as supervisors. They explained what was expected of the students, discussed methods of solving problems, and clarified the students' legal status.(30)

Probationers served both ashore and aboard ship. There was strong agreement that the medical seniors of the probationers from ships and shore units should meet and plan carefully and thoroughly for the pro-

grams to be carried out.(31)

Ashore. At shore bases, students were assigned daily duties at the medical aid posts, as well as in hospital reception departments. They were expected to take part in all activities of the medical services, including conferences and special medical meetings. They were given individual work, study, and research assignments and were expected to acquire an overview of the wider scope of the naval hospital, base poly-clinics, and ship, submarine, and squadron duties and responsibilities.(32)

The student was required to keep a detailed diary of experiences during the probationary period for analysis, study, and recording of the accomplishment of milestones.

Afloat. For the probationer to be assigned aboard ship, the individual was to carry out a "complete" study of the responsibilities and activities of a ship's physician. At the end of the period, the student would be given an oral examination.(33)

Once aboard ship, the students were at the disposal of their commanders. Their service was carried out under the direct supervision of the unit's medical senior.(34) Ideally, no more than two probationers were assigned to each active surgeon.

One of the probationer's first tasks was the preparation of an individual plan to include all the problems he was expected to solve. The plan would be evaluated for timeliness, thoroughness, and quality. It was coordinated with the chief of the command's medical ser-

vice, the flagship medical officer, the leader of the probationary service, and signed by the student. It was to be completed no more than three or four days after the student reported aboard.(35)

The plan had to include a study of the ship, its organization, and services. It detailed the medical services that had to be accomplished during pre-deployment workup such as implementation of therapy, prophylactic and hygienic measures, and the monitoring of crew health. Physical training and combat training and familiarization were emphasized. It included detailed analysis of the planning and organization of the vessel's medical services. The plan, in summary, covered all aspects of ship's medical functions, extending finally to include shore facility admissions of ship's personnel. In peacetime, the plan was expected to include participation in medical conferences ashore, and required party political work, study, and speeches related to party matters.(37)

The student was required to keep a detailed diary of experiences during the probationary period for analysis, study, and recording of the accomplishment of milestones.(38) The probationer was expected to show individual initiative with reasoned and logical study of the problems and solutions of situations encountered aboard ship.(39)

At the end of the probationary period, the future naval physician faced a series of tests. Oral examinations were required and covered the administration of a ship's medical service. This was considered good training for a similar exam that would be required prior to a naval physician's being accepted as chief of a ship's medical service.(40) The Soviet Navy medical leaders required that individuals successfully pass an examination before being granted the "right" to

direct the medical service of a ship independently. (41)

During the probationary period, continuity of the sponsoring institution was seen as a key factor. (42) Additionally, the chief of the ship's medical services had a critical role to play. If the ship's chief medical officer showed real concern and attention to the program, and if the senior developed systematic training and oversight measures, the probationer benefited significantly. (43)

Some authors questioned the effectiveness of the probationary period, pointing out that students entered this program after their fifth course and some still had an inadequate knowledge base. Some units to which the probationers were assigned did not have problems that challenged the individual. Because of improper planning, there was no relationship between problems assigned and realities at the probationary assignment site. Another criticism was that the location of probationary service was sometimes unrelated to subsequent duty assignments. A most significant problem was the presence of disinterested seniors at some probationary training sites. (44) Further criticism included problems with the quality of texts and source material for probationary service. Good materials and texts were not always available. (45)

One solid benefit accruing from the probationary program was that of increased communication and information exchange between the educational institutions and units afloat. (46) A part of the communication occurred during the annual discussion of the state of shipboard probation and practice carried out by the "Council of Faculties of Medical Officer Training." (47) As educators and fleet personnel discussed the program and evaluated criticism, they acknowledged the

problems. However, most agreed that the solution was not to increase the time spent in probationary status, but to improve the organization of the program and to insist on more rational performance during the effort. (48)

The probationary period for future naval physicians was designed to foster psychological insight, develop problem-solving skills, and increase practical knowledge. Probationers became more skillful in emergency medical procedures, honed their crew monitoring skills, and increased their un-

Methods used in the past in the United States have held less promise. Consider the draft-era method that took an individual fresh from civilian life, provided minimal time for basic naval indoctrination, and compressed into an abbreviated period of days the total indoctrination for shipboard duty.

derstanding of marine theater medical geography. (49) The probationer, in the end, should have performed all future functional duties as backup for the chief of a ship's medical service. (50)

The probationary period for the young Soviet naval physician is a time that should be of great value in preparing for duty at sea. An individual who completes a soundly structured and controlled probationary period should be prepared to serve aboard ship or shore station as a naval physician. Such a program suggests a strong level of concern for the effectiveness of those about to practice naval medicine.

The effort required to make such a program work suggests a commitment to excellence.

Methods used in the past in the United States have held less promise. Consider the draft-era method that took an individual fresh from civilian life, provided minimal time for basic naval indoctrination, and compressed into an abbreviated period of days the total indoctrination for shipboard duty. Such a method predestined the future naval physician to a handicapped beginning and an uncertain future. It certainly offered no incentive to pursue a career in naval medicine. Accompanying that system were conditions in which some of the most senior and respected educators and clinicians held fleet duty in quiet disdain and merely tolerated its advocates. At the same time, some of those who remained at sea risked losing their skills because of the absence of periodic refresher training. The total naval mission was not well served by such conditions.

Today, as numbers have decreased and communities have drawn closer together, insight shared among all members of the naval medical community has grown. The imperative need for a strong shore support element is clear. Professional, technical, and intellectual excellence demand an institutional provision for those who keep pace with the state of the professional art, and who participate in its leadership. They are the teachers, the intellectual pot-boilers who stoke the fires in pursuit of growth and development while their contemporaries join battle in the naval medical mission wherever it may be. If the naval medical community were reduced to a small cadre of those who served only at sea and in forward roles, skills would atrophy, professional growth would stagnate, and in the end, the naval

establishment would find itself provided with well intentioned but inferior care. At the same time, a shore support structure provided by a medical service with no identity with or insight into the population served, and devoid of intimate understanding of the mission and task, would be singularly clumsy and ineffectual for many reasons. A bureaucratic and independent shore support structure, with no vested interest in the total naval mission, would be unresponsive and insensitive.

The probationary period concept suggests a blending of shore and operational leadership in an effort to best prepare the fledgling Soviet naval physician for service at sea. A similar effort could be of great value in improving the quality of our own naval medical support.

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Man Overboard

July 13, 1845. Off Pensacola Navy Yard.

About 12 o'clock last night a noise was heard as if some object fell overboard. A boat was sent in search but nothing was found but on mustering the crew this morning at daylight J. Griffin was found missing and it is supposed he must have fallen overboard last night and been drowned. His body has not been found.

July 19, 1845. Off Pensacola Navy Yard.

A shark was caught this day on board the sloop of War *Saratoga* and on opening its stomach the head of a man was found, which was recognized by the officers and crew of this ship as being that of James Griffin, QM, who is supposed to have fallen overboard from this ship on the night of 12th of July.

—Extract from Medical Journal, USS *Falmouth*

BUMED SITREP

MEDICO-LEGAL FEEDBACK—STANDARDS OF CONDUCT

SECNAVINST 5370.2G requires continuing dissemination of standards-of-conduct information to all personnel on at least a semiannual basis. Accordingly, the following information is provided with the request that it be given the widest possible exposure within each activity.

The standards of conduct (SOC) for the Navy are guidelines governing relationships among naval personnel and between naval personnel and persons doing business with DOD. The SOC cover all Navy personnel, at all times, everywhere. The SOC require that THOU SHALT NOT:

- Use or *appear* to use public office for private gain.
- Give or *appear* to give preferential treatment to any person or entity.
- Impede or *appear* to impede Government efficiency or economy.
- Lose or *appear* to lose complete independence or impartiality.
- Make or *appear* to make a Government decision outside official channels.

- Do or *appear* to do anything which adversely affects the confidence of the public in the integrity of the Government.

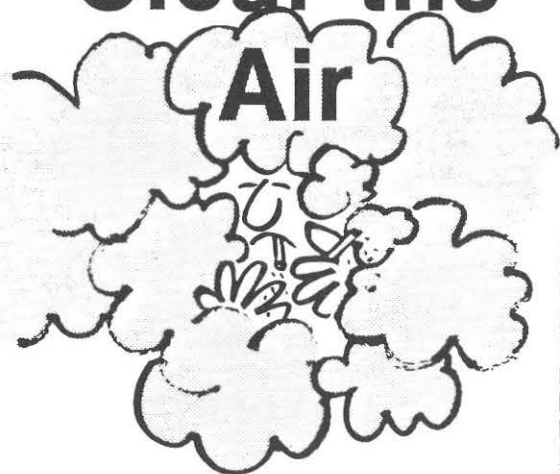
Details concerning conflicts of interest, commercial dealings, acceptance of gratuities and honoraria, outside employment, and other subjects covered by the SOC are contained in SECNAVINST 5370.2G. The nearest Naval Legal Service Office can provide legal guidance, as can the BUMED Special Assistant for Medico-Legal Affairs.

Above all in SOC matters, the mottos are: "Appearances Count," and "When in Doubt, Don't Do It!"

SEXUAL HARRASSMENT

The Secretary of the Navy has issued a Department of the Navy Policy on Sexual Harrassment—SECNAV Instruction 5300.26. This policy is to be communicated to all military and civilian personnel, posted in conspicuous places, and supplemented with appropriate training and guidance to employees and supervisors on positive actions to create a work environment free from sexual harrassment.

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Non-Ophthalmic Auto Inoculation

LT B.C. Gysen, MC, USNR

CAPT R.J. Seeley, MC, USN

The eradication of smallpox stands as a milestone of medicine in this century.⁽¹⁾ Current Navy policy dictates that all active duty personnel receive smallpox vaccination because of the possibility of smallpox virus exposure by other than natural means.^(2,3)

Patient Report

A 17-year-old white male recruit presented to the recruit dispensary at the Naval Training Center, Great Lakes, IL, with a one-day history of fever, chills, and marked swelling of the right upper and lower lips. Eleven days before this visit and subsequent admission, he noted an open cold sore of the right upper lip with soreness of the gums. Nine days before admission, he received Wyeth brand dried smallpox vaccine by standard needle scratch method on the left upper arm. Despite being warned not to touch the site, he scratched the vaccination site repeatedly. Four days before admission, two red lesions developed on the upper and lower lip measuring three cm in diameter. In the 24 hours before admission, he developed an oral temperature of 103°F with marked soreness and pain about the right mouth and cheek.

The recruit had been at the Naval Training Center, Great Lakes, for 14 days before administration of the smallpox vaccination. He gave no history of hospitalization, serious medical illnesses, or recurrent infections. There was no history of allergies, eczema, or chronic skin disease. This was his first smallpox vaccination.

Physical examination on admission revealed a diaphoretic white male who appeared acutely ill with an oral temperature of 103.2°F. Examination of the head and neck revealed a three cm reddish brown circular lesion of the right upper lip and similar lesion of the right lower lip, both near the commissure. Both lips were grossly swollen and distorted. There was no evidence of a scale on either of the lesions. In addition, there were three small vesicles on the left upper lip and

a single vesicle of the tongue measuring less than one centimeter each in diameter. The right cheek was swollen with erythema extending to the right ear. Multiple small, nontender lymph nodes were palpable in the right neck. The remainder of the physical exam was unremarkable with the exception of the vaccination site on the left arm which was consistent with a successful primary vaccination without evidence of resolution as manifested by scale formation.

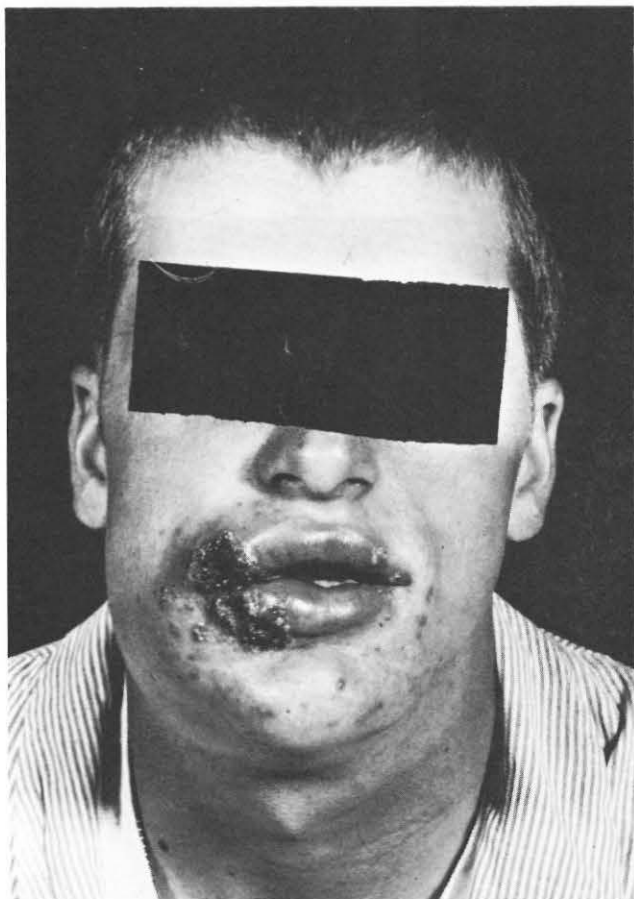
Initial laboratory results revealed a hemoglobin of 17.1 g/dl, hematocrit of 47.6 percent and a white blood count of 10,100 with 60 segs, 21 bands, 14 lymphs, and 5 monos. A urinalysis and routine chemistry profile were unremarkable. Extensive cultures of the lesion and of blood were obtained.

Following admission, the patient was treated with intravenous hydration. After consultation with the Center for Disease Control, Atlanta, GA, Vaccinia immune globulin .6 cc/kg IM was administered which was given 18 hours after admission. Over the next 48 hours, he showed remarkable improvement. The temperature returned to normal, and there was a marked decrease in the swelling of the lips and right cheek. Additional laboratory data available on the third hospital day included normal serum immunoglobulins, negative blood cultures, and bacterial culture of the ulcers positive for staph aureus. The patient was subsequently started on a 10-day course of erythromycin for presumed secondary cellulitis. Over the next seven days, the lesions regressed in size, and he was discharged to be followed for any residual scarring. Viral cultures of the lesions eventually grew vaccinia.

Discussion

The complications of smallpox vaccination and treatment for the same have been well reviewed.^(4,5) As the absolute number of smallpox vaccinations decreases it can be expected that the familiarity with complications will also decrease. As civilian smallpox vaccinations are discontinued, the relative frequency of primary vaccinations administered by the military will increase. The inherent risk of primary vaccination compared to re-

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Initial presentation of recruit to health care screener



Closeup of implantation sites of right upper and lower lips



Implantation site six weeks after discharge showing resolution and small area of hyperpigmented scar (1.0 cm x .5 cm).

vaccination may become more evident. In the case presented, the initial health screener perceived the presentation as cellulitis of the cheek. Upon admission, the correct presumptive diagnosis was immediately made.

The mechanical and physical precautions which are known to lessen the frequency of smallpox complications should be incorporated into each vaccination protocol. (6) Ongoing review of techniques by facilities administering smallpox vaccination should be undertaken.

The current policy at the Naval Training Center, Great Lakes, consists of a Nurse Corps officer briefly examining all personnel before their smallpox vaccination. Special attention is directed toward patient education in the care of the site and strict instructions are given to avoid any contact with or covering of that area. Vaccine is not to be given to recruits with acne, herpes, or cold sores. Thirty-three thousand smallpox vaccinations were administered at the Naval Training Center, Great Lakes, in 1979.

Immunization policy must constantly be reviewed to

confirm that the benefits gained outweigh the complications, cost, and time inherent in administration. Justification for the smallpox vaccination of active duty personnel because of the possibility of exposure by other than natural means must be viewed in relation to the complications of such vaccination. (7)

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Altered States of Consciousness in the Treatment of Alcoholism



HM2 J. Parmenter, USN

LT Douglas S. Derrer, MSC, USNR

Man's interest in altered mind states goes back to the dawn of time. Throughout history, man has employed a variety of means to achieve changes in mood, consciousness, perception, and feeling. These means have included the use of drugs, chemicals, alcohol, herbs and plants, fasting, dancing, music,

chanting, sex, religious ritual, and more recently, aerobic exercise and other sports. A number of these means—drugs, chemicals, and alcohol—have led to negative addiction states in which the person becomes psychologically and/or physically dependent upon particular chemicals and demonstrates the discomfort of withdrawal when he is unable to obtain addictive substances.

Recently, in writing about the problem of addictions, William

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Glasser pointed out that there are *positive* addiction states as well. Notably, he singled out both meditation and the aerobic exercise of jogging as producing similar subjective conditions that resemble addictions. In his studies of meditators and joggers, Glasser found that when prevented (for whatever reason) from engaging in their routine practice, these individuals became agitated, uncomfortable, depressed, guilty, nervous, and tense. In short, they exhibited many of the signs associated with withdrawal from chemical addiction. Glasser's study is of interest here in that it illustrates the continuing historic and social mania for discovering and using any and all means to alter one's mind state. Whether one pursues a positive or a negative addiction, the goals, effects, and consequences of discontinued use are somewhat the same.

Alcohol has assumed a prominent role in man's pursuit of altered states of consciousness. The reason is both historic and economic. Alcohol is simple, easy, and cheap to produce. It is readily accessible and can be made from many types of grains, plants, and berries. Evidence of its production and consumption goes back thousands of years. During alcohol's long history, it has assumed a prominent role in magic, mystery, medicine, and mysticism.

Social and Historic Use of Alcohol

Socially, alcohol is widespread both in its availability and consumption. It is estimated that some 100 million Americans, or about half the population of the U.S., consume alcohol regularly. Despite the rational scientific attitudes of most Westerners, alcohol is perceived by many as having almost mystical and medicinal powers. It is used as a relaxant, stimulant, aphrodisiac, enhancer of appetite and a neces-

sary accompaniment to a meal, as a tranquilizer to help one unwind and release tension, and as a stimulant to provoke conviviality in a social setting or at a party.

Many of these modern attributions to the power of alcohol are not new. It is common knowledge that alcohol was produced and consumed freely at religious and festive rituals of early peoples. The Greeks and Romans dedicated gods to wine; grapes and fertility were intricately interrelated. No meal, dance, bacchanal, or orgy was complete without the presence and ready consumption of alcohol. The word "libation" comes from the same root word as the word "liberation." Thus, couched in the origins of our language are the implications that to drink is to release and liberate oneself from normal conscious constraints.

Statistics of Alcoholism

Statistically, of the 100 million Americans who drink, conservative estimates suggest that 10 percent become alcoholic. For the alcoholic who is addicted to alcohol and whose life becomes centered around its consumption, alcohol is not magic, mystery, or medicine; it becomes madness. Where alcohol once played a supplemental and peripheral role in the lives of these individuals, it assumes greater and greater importance until it occupies an essential and central role. The so-called social drinker controls his drinking; the alcoholic is controlled by his drinking.

Symbolic Meaning of Alcohol for the Alcoholic

Symbolically, alcohol and the altered mind or mood state produced from alcohol consumption takes on many meanings for the alcoholic. Because of its availability and its effect on the mind, the alcoholic grows to regard alcohol in

more complex and significant ways. The role that alcohol plays for the alcoholic assumes a greater proportion of his life so that normal human relationships dim in importance. Alcohol becomes the constant companion, the ready friend, the comforter, the liberator, the powerful ally, the bringer of peace, the curer of suffering, anguish, pain, and tension. Ultimately, alcohol brings deliverance through oblivion, sleep, and amnesia. Unlike normal, sometimes unpredictable human relationships, alcohol is constant and consistent. It is the ideal friend, the complete companion; it replaces lover or spouse. It seems to give much but makes no apparent demands. Although the severity of a hangover can reduce the pleasure obtained from alcohol consumption, "surviving" such hangovers often becomes a hallmark for the alcoholic, an expression of his bravado. This pursuit of alcohol-induced peace and tranquility, which eventually leads to oblivion, is what Dr. Pursch* has called sedativism. Much of the mystery of the effect of alcohol in altering mind states lies in its paradoxical properties of both sedating and stimulating the individual.

Stages of Intoxication

The intoxication process has several phases, beginning with a releasing of tensions and a relaxation, which disinhibits the individual. This produces a kind of stimulation, usually resulting in greater degree of social conviviality. Later, as one continues to consume alcohol, judgment becomes less acute and muscle control deteriorates. This is manifested in slurred speech and unsteady gait. Additional con-

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sumption reduces both sensory and motor capabilities so that speech becomes unintelligible, sight is blurred and sometimes double, gait is unsteady and the person stumbles, falls, and may hurt himself unknowingly. At this point, the individual may enter a blackout phase in which he acts and says things that he cannot remember upon regaining sobriety. With further consumption, the individual becomes dulled, confused, and stuporous, usually falling into drugged sleep shortly thereafter.

Attitudes Toward Alcohol Conveyed by Slang

Close analysis reveals that, linguistically, words used to refer to the state of intoxication, fall into two categories. Although it is clear that there are more than two states of intoxication, it is curious that our common and popular slang refers only to two stages of intoxication. The first category contains words referring to a mild euphoria—a pleasant feeling, more labile emotions, and a general salubrious condition. The second category refers to a state that is close to oblivion but short of being comatose. Often these are terms of opprobrium and disgust. It is also interesting to note that there are twice as many words in the second category as in the first (Table 1). It would seem that slang expresses most clearly our ambivalent attitudes toward alcohol. Finally, from the linguistic standpoint, it should be noted that the word "intoxication" has as its root the word "toxin," which means poison. Therefore, to become intoxicated is to become poisoned.

Basic Questions About Alcoholism

With all the historic and cultural fascination and involvement with alcohol, one would think a better understanding of man's relation to drink and its effects would be avail-

TABLE 1. Common Slang Expressions of Intoxication

- (1) Terms referring to mild euphoria, pleasant feeling, more labile affects, a salubrious condition.

A glow on
Buzzy
Doing fine
Feeling good
High
Lit
Mellow
Stoned
Three sheets to the wind
Under the influence

- (2) Terms referring to a state close to oblivion but short of comatose; terms of opprobrium and disgust.

Blasted
Blind
Blitzed
Blotto
Bombed
Clobbered
Crapped-out
Creamed
Drunk
Eighty-sixed
Glassy-eyed
Gone
Out of it
Pie-eyed
Plastered
Smashed
Snockered
Swacked
Wasted
Wiped slick

There appear to be twice as many terms in category (2) than in category (1).

able. Even with a good deal of scientific research on the medical effects of alcohol on brain, mind, and body, we are yet unable to answer some very basic questions. Who and what is an alcoholic? Are

there different kinds? Is there an alcoholic type or personality? Is alcoholism more prevalent at certain times, in certain cultures, or with particular people? Is alcoholism a disease, and if so, can it be treated

medically? Many theories have been propounded, yet the answers to most of these questions are still debatable.

Medical Definitions of Alcoholism

In medicine, alcoholism is regarded as both a physical and psychiatric disorder. In the Diagnostic and Statistical Manual of Mental Disorders (DSM-II) published by the American Psychiatric Association, alcoholism is listed between personality disorders and sexual deviations on the one hand and drug dependence and psychophysiological disorders on the other. The definitions of alcoholism in the DSM-II are dependent largely on the number of times per year that the person in question becomes intoxicated. The DSM-II has established rather arbitrary criteria in making various diagnoses of alcoholism. In addition, these definitions are often circular. For example, "episodic excessive drinking" is defined as "if alcoholism is present and the individual becomes intoxicated as frequently as four times a year." This is a curious tautology inasmuch as one is attempting to establish the diagnosis of alcoholism. This illogic is carried into the second definition of "habitual excessive drinking" which is a diagnosis "given to persons who are alcoholic and who either become intoxicated more than 12 times a year or are recognizably under the influence of alcohol more than once a week, even though not intoxicated." This psychiatric doubletalk and circular reasoning does not lend much clarity to an already complex issue. Finally, the DSM-II defines "alcohol addiction" as a condition that exists "when there is direct or strong presumptive evidence that the patient is dependent on alcohol." This definition is somewhat improved by at least one medical criterion, that being the appearance

of withdrawal symptoms when alcohol is withheld.

In addition to the lack of clarity and logic in these definitions, there are other more serious problems that exist. These definitions provide few implications for treatment. They clarify little about the etiology of the disorder. The DSM tells nothing of the dynamics of alcoholism in terms of personality theories or constructs that are accepted in psychiatry and psychology. Based, as they are, largely on quantity and frequency of consumption, these diagnostic definitions tell us little about the person or his problems.

Is the Alcoholic Truly Different?

Despite the fact that over half the population of the U.S., consumes alcohol, the alcoholic himself is regarded as someone apart, a different breed outside the mainstream. He is often viewed with opprobrium and disgust and perceived as a person with a normally weak character unable to control his consumption of alcohol. Can it be that the alcoholic is truly different from any other person who consumes alcohol?

A central reason for the historic and present use of this beverage has been to alter mood states or to change the nature of consciousness. From this standpoint, then, the alcoholic is engaged in the same primary behavior as any other person who drinks. However, the alcoholic's consumption has gotten out of control and has gone to extremes.

Most treatment philosophies for alcoholism are based on a concept of total abstinence from alcohol. In addition, alcoholics are discouraged from consuming any other kind of mood or mind-altering chemicals such as tranquilizers, antidepressants, and other legal and illegal drugs. Apparently, this viewpoint in

treatment of the alcoholic is based on the assumption that the alcoholic has an "addictive personality" and would likely abuse any chemicals as he abused alcohol.

Yet, the alcoholic is faced with a dilemma. The alcoholic, like many other persons, has a desire to alter his mood states and to change his consciousness. But the widely accepted use of chemical means to do so is denied him by the treatment approaches and of Alcoholics Anonymous and other alcoholism rehabilitation programs. It is quite possible that the lack of success of treatment programs for the alcoholic is due to the fact that many alcoholics have difficulties abstaining from all means of mood and mind alteration. The alcoholic is not only denied alcohol, but is denied all other opportunities for changing his mood or state of consciousness. Given the extensive symbolic significance of alcohol for the alcoholic, total abstinence is asking him or her to give up a great deal more than just drink. Poor treatment success may result from demanding that the alcoholic give up too much and from the apparent lack of other alternatives.

If we recognize, however, that alcohol abuse and the desire to achieve an altered state of consciousness are quite different, then the ramifications of this viewpoint for treatment procedures are considerable. Clearly, the alcoholic should stop drinking. In many instances, this is an action taken to save the alcoholic's life. However, at the same time, is it necessary that the alcoholic must likewise give up all routes to altered states of consciousness?

Nondestructive Routes to Altered Mind States

Returning to the earlier descriptions in this article of the numerous means for altering states of con-



An 840-year-old scene from a temple wall at Cambodia's Angkor Wat

sciousness, it becomes very clear that there are many routes to the same objective. Man's desire to achieve altered states of consciousness or to "get high" is universally apparent and is extensive at present in our society. This view, in combination with Glasser's concepts of positive addiction, lead to the conclusion that a type of substitution therapy could be utilized in the treatment of alcoholism and other addictive disorders. Rather than simply expressing the treatment philosophy that total abstinence is the only route to a sane and sober life, counselors and therapists might teach and train their alcoholic patients ways of achieving altered

states of consciousness that lead to positive addiction via nondestructive methods. For example, many treatment programs have a physical fitness component. It is seldom recognized that this physical fitness component could be effectively utilized as a means for "getting high." Yet, there is a large and growing literature on the transcendental effects of jogging—the "runner's high." In addition, experience with alcoholics shows that most of them have used alcohol as a way to reduce stress, tension, anxiety, and disruptive emotional states. Some treatment programs provide the alcoholic patient with various techniques and methods of

stress management. These methods have included progressive relaxation exercises, hypnotic induction, and meditation training. Again, such stress management methods are also means of altering states of consciousness in a positive and constructive manner if pursued regularly and extensively.

The "High" as Therapy

Incorporating both physical fitness and stress management procedures in an alcohol treatment program offers the alcoholic ways of getting high that are legal, safe, and constructive, and which provide a multitude of other benefits. What appears to be needed, then, is the incorporation in our treatment of a philosophy that makes it legitimate to pursue altered states of consciousness. In truth, it is not the goal of altered mind states to which society objects. Rather, it is the alcoholic means leading to self-destructive behavior and actions that disturb work performance, personal and family relationships, and ruin human lives. What seems necessary is first to legitimize the goal and then to help the alcoholic substitute constructive and positive methods for achieving that goal in place of his addiction to alcohol.

It is safe to say that all chemical means used to achieve altered states of consciousness eventually become self-destructive. A laudable goal of treatment for alcoholism and other addictive disorders could be to develop a rebirth of interest in constructive and positive methods for achieving altered mind and mood states. Positive methods such as a renewed emphasis on the value of religious rituals, fasting, aerobic exercise, and meditational practices have been demonstrated to have physical, psychological, and spiritual benefits. A reexamination of their value in the treatment of addiction is needed at this time. □

NOTES & ANNOUNCEMENTS

POSTDOCTORAL ASSOCIATESHIPS

Applications are now being accepted for the postdoctoral research associateship programs conducted by the National Research Council of the National Academy of Sciences on behalf of the Naval Medical Research and Development Command (NMRDC).

Under the programs, postdoctoral biomedical engineers and medical, biological, and behavioral scientists participate in biomedical investigations conducted at the Aircraft and Crew Systems Technology Directorate, Naval Air Development Command, Warminster, PA, and at the following four NMRDC laboratories:

- Naval Medical Research Institute, Bethesda, MD.
- Naval Submarine Medical Research Laboratory Groton, CT.
- Naval Aerospace Medical Research Laboratory Pensacola, FL.
- Naval Health Research Center, San Diego, CA.

Awards are made on a highly competitive basis.

Areas in which the research associateships are awarded are: experimental medicine, immunology, undersea medicine, aerospace medicine, behavioral sciences, biochemistry, biophysics, environmental stress, microbiology, parasitology, virology biomagnetics, physiology, and radiation biology.

Candidates must hold an M.D., a D.D.S., or a Ph.D. degree or the equivalent, and must be research oriented.

The National Research Council screens the candidates' records, selects applicants, and approves the scientific merits of laboratory projects and the credentials of research advisors.

Applications must be postmarked no later than 15 Jan 1981 and must be received in the Council's Associateship Office no later than 25 Jan 1981. Supporting documents must be received by 15 Feb 1981.

For further details, write: Associateship Office (JH-608-NI), National Research Council, 2101 Constitution Ave., N.W., Washington, DC 20418.

DR. HARRISON RECEIVES AMSUS AWARD

CAPT William O. Harrison, MC, USN, received the 1980 Sir Henry Wellcome Medal at the 87th annual meeting of the Association of Military Surgeons of the U.S., held 2-6 Nov 1980.

The award is presented annually for the winning essay on subjects relating to military medicine. Dr. Harrison's "Prophylaxis of Gonorrhea—Is an Ounce of

Prevention Worth the Cost?," deals with cost-effectiveness of gonorrhea prophylaxis regimens.

Dr. Harrison served as Director of the Clinical Investigation Center and Head of the Infectious Diseases Branch at NRMDC San Diego, CA.

IN MEMORIAM

RADM *Hubert J. VanPeenen*, MC, USN (Ret.), former Navy surgeon, died 6 Oct 1980 in Long Beach, CA. He was buried in Arlington National Cemetery.

Born in Kalamazoo, MI, on 27 Dec 1903, Dr. VanPeenen attended Kalamazoo College from 1922-1924 and received his M.D. degree from the University of Michigan Medical School in 1928.

Dr. VanPeenen was commissioned a lieutenant (junior grade) assistant surgeon in the Navy Medical Corps on 5 June 1928, and interned at the Naval Hospital, New York, from 1928-1929. He then served in many duty assignments followed by postgraduate instruction in general surgery at the Naval Hospital, Philadelphia, PA, from 1937-1938.

During World War II, Dr. VanPeenen was taken prisoner by the Japanese in December 1941, and spent 45 months as a POW. While interned, he performed numerous operations under difficult and unsanitary conditions with such skill that all operations were completely successful. For his exceptional medical treatment of the other POWs, he was awarded the Legion of Merit.

His last duty assignment was Commanding Officer at Naval Hospital, Portsmouth, VA, with additional duty as Fifth Naval District Medical Officer.

Dr. VanPeenen retired from active duty on 1 July 1963.

LT *Edward J. Otis*, MSC, USN, former Health Care Administrator, died 1 Oct 1980 at NRMDC Jacksonville, FL.

Born in Manhattan, NY, on 1 June 1938, LT Otis received an associate's degree in business administration from Delmar College, Corpus Christi, TX.

LT Otis enlisted in the Navy Hospital Corps in January 1957 and advanced to Chief Hospital Corpsman. He was commissioned an ensign in the Medical Service Corps as a Health Care Administrator in 1973. His duty assignments included NRMDC Jacksonville, FL (1973-76); USS *Kennedy* (1977-78); Naval School of Health Sciences, Bethesda, MD (1978-79); and NRMDC Jacksonville from 1979 until the time of his death.

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